

APPLICANT(S): LEWKOWICZ, Shlomo et al.
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AMENDMENTS TO THE CLAIMS

Please amend claim 88 as follows.

Please add new claims 90 and 91 as follows.

The following listing of claims replaces all versions, and listings, of claims in this application.

Listing of Claims:

1-72. (Canceled)

73. (Previously Presented) The method according to claim 88 comprising imaging the interaction chamber with an optical system.

74. (Previously Presented) The method according to claim 88 comprising imaging the optical changes in the interaction chamber.

75. (Previously Presented) The method according to claim 88 comprising illuminating said interaction chamber wherein at least a portion of the interaction chamber is transparent in a wavelength of illumination.

76. (Previously Presented) The method according to claim 88, comprising transmitting images to an external receiver.

77. (Previously Presented) The method according to claim 88, comprising pumping the endoluminal sample into the interaction chamber.

78-87. (Withdrawn)

88. (Currently Amended) A method for determining body lumen conditions in-vivo, the method comprising:

inserting into a body lumen an in-vivo imaging device having an interaction chamber, an imager and an optical window, wherein said interaction chamber and said imager are positioned within said imaging device behind said optical window and said imager captures images of said interaction chamber;

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allowing a first endo-luminal sample to enter through a first opening of an the in-vivo interaction chamber, the interaction chamber having immobilized therein an indicator configured to react with at least the first endo-luminal sample, said reaction occurring within the interaction chamber, and the reaction resulting in an optical change;

detecting the optical change;

discharging the first endo-luminal sample through a second opening of the interaction chamber; and

replacing the first sample in the interaction chamber with a new sample.

89. (Previously Presented) The method according to claim 88 comprising capturing an image of a gastrointestinal wall.

90. (New) The method according to claim 88 wherein said imager captures images of said body lumen in addition to said interaction chamber.

91 (New) The method according to claim 88 wherein said imager captures images of optical changes that occur within the interaction chamber.